



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 01/27/2005  
SABATH & TRUONG  
111 N MARKET ST  
SUITE 815  
SAN JOSE, CA 95113

**RECEIVED**  
FEB 08 2005  
Technology Center 2600

EXAMINER	
SHELEHEDA, JAMES R	
ART UNIT	PAPER NUMBER
2614	
DATE MAILED: 01/27/2005	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/444,488	11/19/1999	LUC VANTALON	5442-020	8716

TITLE OF INVENTION: DIGITAL TELEVISION CONDITIONAL ACCESS METHODS AND APPARATUS WITH MULTIPLE DATA TRANSPORT MECHANISM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	\$700	04/27/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
(703) 746-4000**

or **Fax**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590

01/27/2005

**SABATH & TRUONG  
111 N MARKET ST  
SUITE 815  
SAN JOSE, CA 95113**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/444,488	11/19/1999	LUC VANTALON	5442-020	8716

TITLE OF INVENTION: DIGITAL TELEVISION CONDITIONAL ACCESS METHODS AND APPARATUS WITH MULTIPLE DATA TRANSPORT MECHANISM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	\$700	04/27/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
SHELEHEDA, JAMES R	2614	725-025000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/444,488	11/19/1999	LUC VANTALON	5442-020	8716

7590 01/27/2005

SABATH & TRUONG  
111 N MARKET ST  
SUITE 815  
SAN JOSE, CA 95113

EXAMINER

SHELEHEDA, JAMES R

ART UNIT PAPER NUMBER

2614

DATE MAILED: 01/27/2005

## Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/444,488	VANTALON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James Sheleheda	2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/07/04.
2. ☒ The allowed claim(s) is/are 1-18,33,35,36 and 38-42.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 05/07/04.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### *Allowable Subject Matter*

1. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-7 are allowable because the prior art fails to teach or disclose a method for enabling a conditional access module to handle any of a plurality of data transport streams, comprising: qualifying received data bytes according to their positions and values within a data packet; and ***attaching a multi-bit tag to each received data byte***, such tag containing information required for further processing of the byte.

Claims 8-16 are allowable because the prior art fails to teach or disclose a system for enabling a conditional access module to handle any of a plurality of data transport streams, comprising: a qualification mechanism for qualifying received data bytes according to their positions and values within a data packet; ***and a tagging mechanism for applying a multi-bit tag to each received data byte***, such tag containing information required for further processing of the byte.

Claim 17 is allowable because the prior art fails to teach or disclose a mechanism for enabling a conditional access module to handle any of a plurality of data transport streams, comprising: a qualifying mechanism for receiving and qualifying received data bytes according to their positions and values within a data packet; and a

Art Unit: 2614

***tagging mechanism for assigning a multi-bit tag to each data byte***, such tag having a value determined by the results of the qualifying process performed by the qualifying mechanism.

Claim 18 is allowable because the prior art fails to teach or disclose a method for handling any of a plurality of data transport streams, comprising: qualifying received data bytes according to their positions and values; and attaching a tag to ***each*** qualified data byte.

Claims 33 and 35 are allowable because the prior art fails to teach or disclose a digital receiving system, comprising: an input signal channel for receiving a digital television signal in one of a plurality of digital signal formats;

transmission format converter circuitry for converting the incoming data stream into a transmission format independent set of digital television signals, the converter circuitry further comprising a qualifying mechanism for receiving and qualifying ***each*** incoming data byte according to its position and value in its plural-byte data packet and further comprising ***a tagging mechanism for assigning a plural-bit tag to each data byte***, the tag having a value determined by the results of a data byte qualifying process performed by the qualifying mechanism; and

a digital display mechanism for converting the digital television signals into a visual image, wherein the digital signal receiving channel further comprise signal

Art Unit: 2614

processing circuitry for supplying television signals to the display responsive to the tagged data bytes.

Claims 36 and 38 are allowable because the prior art fails to teach or disclose a digital receiving system, comprising:

at least two input signal channels for receiving at least first and second digital signal streams where the first stream carries digital television signals and the second stream carries digital message signals, wherein each data stream is transmitted in one of a plurality of different transmission formats;

transmission format converter circuitry for converting the incoming data stream into a transmission format independent set of signals,

a television display mechanism for converting the format independent television signals into a visual image;

a message processing mechanism for converting the transmission format independent message signals into user perceivable message signals;

a first qualifying mechanism for receiving and qualifying incoming television signal bytes according to their positions and values in their plural-bit data packets;

***a first tagging mechanism for assigning a plural-bit tag to each received television signal byte***, the television tag having a value determined by the results of a qualifying process performed by the first qualifying mechanism;

first signal processing circuitry for providing television signals to the display mechanism responsive to the tagged bytes;

a second qualifying mechanism for receiving and qualifying incoming message signal bytes according to their positions and values in their plural-bit data packets;

**a second tagging mechanism for assigning a plural-bit tag to each received message signal byte**, the message tag having a value determined by the results of a qualifying process performed by the first qualifying mechanism;

second signal processing circuitry for providing message signals to the display mechanism responsive to the tagged bytes.

Claim 39 is allowable because the prior art fails to teach or disclose a system for receiving a plurality of different digital data transport stream formats, comprising: a qualifying mechanism for receiving and qualifying incoming data bytes according to their positions and values in their plural-byte data packets; **a tagging mechanism for assigning a plural-bit tag to each data byte**, such tag having a value determined by the results of the qualifying process performed by the qualifying mechanism, and a signal processing mechanism responsive to the tagged data bytes for producing digital information signals.

Claims 40-41 are allowable because the prior art fails to teach or disclose a mechanism for receiving a plurality of different digital data transport stream formats, comprising: a qualifying mechanism for receiving and qualifying incoming data bytes according to their positions and values in their plural-byte data packets, and **a tagging mechanism for assigning a plural-bit tag to each data byte**, such tag having a value



determined by the results of the qualifying process performed by the qualifying mechanism.

Claim 42 is allowable because the prior art fails to teach or disclose a mechanism for receiving a plurality of different digital data transport stream formats wherein the data is conveyed in multi-byte data packets with each packet having a plural-byte header field and a plural-byte payload field, comprising: a first testing mechanism for examining *each* incoming data byte and determining whether the byte is a header byte or a payload byte, ***a first tagging mechanism coupled to the first testing mechanism for assigning header byte indicative tags to header field data bytes and payload indicative tags to payload field data bytes***, a second testing mechanism for examining each incoming data byte and determining whether the data is scrambled, ***a second tagging mechanism coupled to the second testing mechanism for assigning a scramble condition tag bit to each data byte*** and giving such bit one binary value if the data is scrambled and the other binary value if the data is not scrambled, and signal transfer circuitry for transferring each data byte and its assigned tag bits to a data processing mechanism for producing usable digital information.

A background search found similar prior art, however, not completely as claimed.

For example, Williams et al. (6,157,411) discloses a method to analyze and convert a plurality of received transport formats into another "sourceless" format.

Art Unit: 2614

Williams et al. fails, however, to specifically disclose qualifying received data bytes and attaching multi-bit tags to each byte.

Temple (EP0880277A2) discloses a receiver which will receive signals in two formats and perform conversion so one only signal type is output. Temple fails, however, to disclose qualifying received data bytes and attaching multi-bit tags to each byte.

Hsing et al. (6,735,310) discloses an encryption system which will qualify and attach multi-bit tags to each received password. Hsing fails, however, to disclose attaching tags to each received byte.

### ***Conclusion***

2. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Art Unit: 2614

on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

### **Certificate of Transmission**

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) \_\_\_\_\_ - \_\_\_\_\_ on \_\_\_\_\_.  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda  
Patent Examiner  
Art Unit 2614

JS



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

<b>Notice of References Cited</b>	Application/Control No. 09/444,488	Applicant(s)/Patent Under Reexamination VANTALON ET AL.	
	Examiner James Sheleheda	Art Unit 2614	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,735,310 B1	05-2004	Hsing et al.	380/28
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.